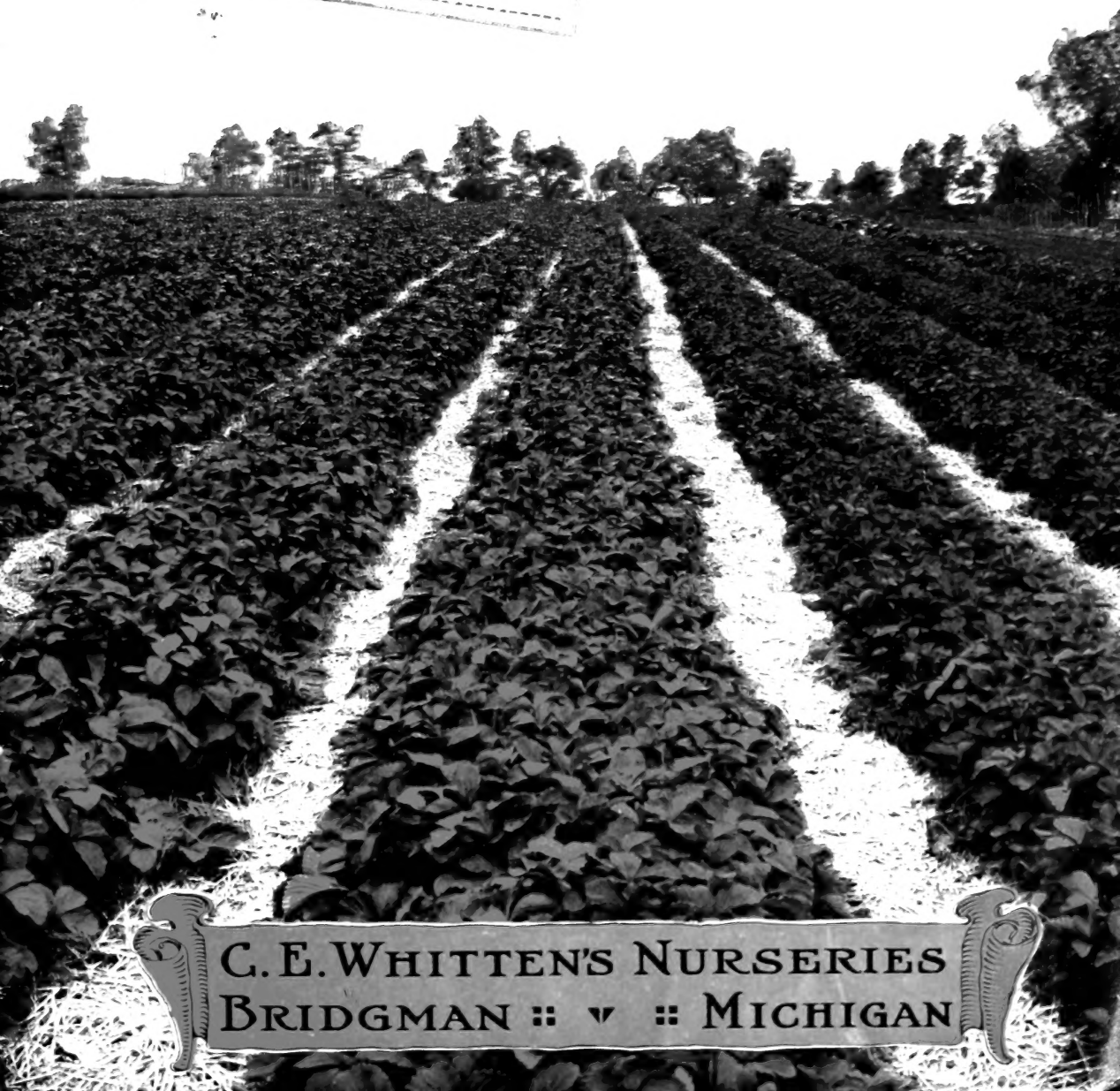
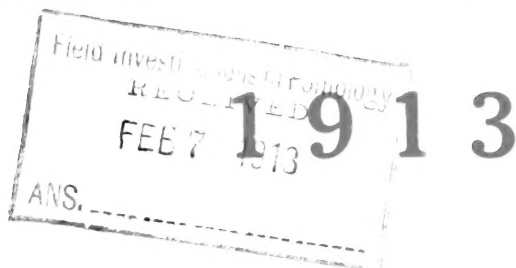


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Do not assume content reflects current scientific knowledge, policies, or practices.

6. 41

STRAWBERRY PLANTS & THAT GROW



C. E. WHITTEN'S NURSERIES
BRIDGMAN :: ♡ :: MICHIGAN



PREMIUM OFFERS



St. Regis Everbearing Red Raspberry

With every order for stock from this catalogue, amounting to \$2.00 or more, I will include 4 plants of **St. Regis Raspberry**, or 12 plants with an order for \$5.00.

This is the new Everbearing Red Raspberry described in Raspberry division of this catalog.

Or with an order amounting to \$2.00 or more I will include 6 plants of Perennial Phlox (see description below); or with an order for \$5.00 or more I will include 15 plants of Phlox.

With an order amounting to \$10.00 or more I will include free a year's subscription to **The Garden Magazine**, published monthly by Doubleday, Page & Company, of New York City. As its name indicates it is devoted to the interests of the garden,

and is a very high class magazine. The price was formerly \$1.00 per year, but has recently been advanced to \$1.50. By agreement with the publishers I can offer one year's subscription in connection with an order for stock from my list amounting to \$1.00 or more, for the sum of \$1.00, thus saving you 50 cents.

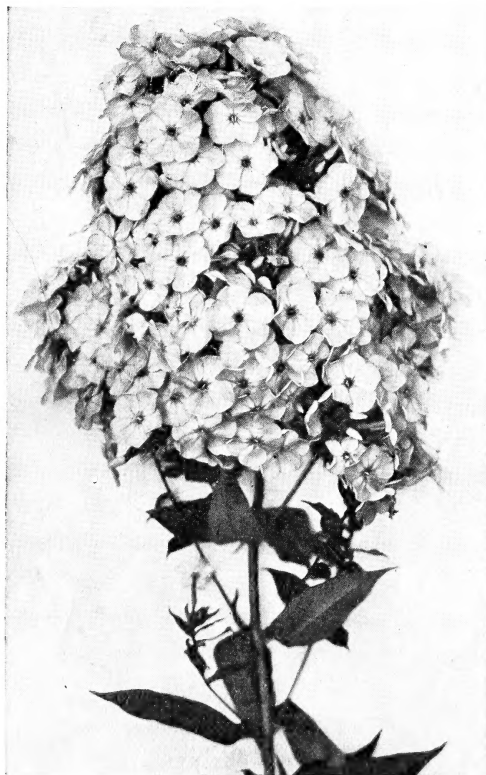
With an order amounting to \$5.00 or more you may add 50 cents worth of stock, your choice.

Or with an order amounting to \$10.00 or more you may add 10 per cent in stock as a premium, **except** on special prices given on strawberry plants in 5,000 lots.

Please notice that if you wish to take advantage of either of these premium offers you must so state when sending your order.

Also note that in either of these offers the amount shall be figured at catalogue prices, and not where a "Special Price" has been quoted.

Also only one Premium with each order.



Perennial Phlox

I first offered plants of this Ornamental as a premium with orders for other stock only, as we had a limited amount, but this season I have grown a very fine stock of plants and shall list them for sale as well as to offer as premiums.

Our plants are mixed seedlings grown from seed saved from twelve named varieties of Phlox running through all shades of red and including pure white.

To those of my friends who are unacquainted with this flower, I will say that it is one of the easiest plants to grow, and makes a splendid background or border for the lawn or home grounds, giving a profusion of bloom through mid-summer and continues until killed by frost.

I can not furnish special colors, as these plants are mixed varieties and will consist as I have said above, of the different shades of red. While many will be a combination of two shades of color, some very light with a dark center, while others will be the reverse, dark with a lighter center, also some pure white.

These plants are both one and two year old, strong and well rooted; most of them having bloomed the past summer.

I am going to offer these as Premiums again. Six plants with an order amounting to \$2.00 or 15 with an order amounting to \$5.00. Regular sale price 10c each, twelve for 75c, or 20 for \$1.00.

C. E. WHITTEN'S NURSERIES, Bridgman, Mich.



ANNOUNCEMENT



GAIN the time has arrived for us to present our **Annual** booklet to our friends and patrons, and I wish to take this opportunity to thank our old customers for their patronage and to solicit a continuance of the same.

A word of introduction to those who receive this catalogue for the first time: We commenced growing Strawberries for market in our present location in 1883, and have been at it ever since. For **Twenty-two** years we have been selling plants, issuing the catalogue and shipping to all parts of the country.

I make no claim for especial superiority of our plants, nor any claim for **Originality** of our method of growing, only saying that we do grow just as good

plants as any one can grow and better than some, where soil and climatic conditions are not so favorable.

We take great pains to keep our stock **true to name**, and warrant it to be such and if any prove untrue we are ready to either replace, or return the money.

We care for our growing stock in the best possible manner, and do claim that we produce **as good plants** as any one can, without exception. Our plants are tested each year with the much lauded thoroughbred and other bred sorts and generally to the credit of our stock.

We are justly proud of our reputation for **Honesty** and **Square-dealing** and shall endeavor at all times to live up to this **standard**. However, we do not claim to be infallible nor that we please everyone. Of course, where so many orders are filled there are apt to be some blunders and help does not always follow instruction. If our friends find any thing wrong with their order and will write us at once, we will endeavor to right the wrong, if we are responsible for it. I do not like to receive word that "plants were received in fine shape and are all O. K.," and then in a few weeks receive word that "these plants are all dead," and be asked to replace them.

Now, we do not, and can not warrant plants to grow under all conditions; many things may happen to them, either drouth or flood, or perhaps hard frost at planting time would badly injure and perhaps kill them outright, and it can readily be seen that in such case we would not be at fault, still we are sometimes asked to replace under just such conditions.

We warrant our plants to be packed to carry safely and to be in good growing condition when delivered to the forwarders after which our liability ceases.

The past season has on the whole been a very favorable one for strawberry growing; the spring was a little backward with a little too much rain; still we had no late frosts and the crop ripened up in good shape, giving a good yield for which fair prices were realized.

The wet spring with heavy summer rains of almost flood condition, hurt our plant beds on the lower land, thus shortening our supply of some varieties, but generally we have a good stand of well grown plants.

We have said before, and wish to repeat it, do not condemn a variety from one season's experience, as another year may show it very differently, also different soil, or location sometimes changes a variety very materially. Then too, the season of ripening will vary according to locality, some that we class as late may ripen earlier, or those described as extra early be nearer mid-season. We can only give general conditions and do not mean to misrepresent. I have never urged my friends to set largely of untried "Novelties," but rather to test the newer sorts upon their own soil in a small way at first. I do not list any that I am not satisfied have merit. Each year we drop some from our list; not always because we think them poor, but because we have enough that are better and that succeed over a larger territory.

We have had complaint in the past that some of our varieties of strawberry plants (notably, Warfield, Crescent, Senator Dunlap, and others of that type) were "small" and "worthless." Of course, this complaint was not from experienced strawberry growers, for all such realize that there is a great difference in the manner of growth of varieties. Those like Bubach, Marshall, etc., which make very few runners will make much larger plants than those of Warfield type, which set so many and make small plants. These small plants, if thrifty, will grow and make a full row and bear as large a crop in the "matted" row, as the heavier growing plants.

Generally the Warfield type has only one fruit stem to the plant, while Bubach and that type usually have several "crowns" and a greater number of fruit stems to each individual plant. For the grower who is able to give high culture, on a very strong, rich soil, the latter class grown in hills or hedge row would perhaps prove most profitable. However, for the ordinary grower, the smaller type grown in half, or full matted rows, would prove as profitable, requiring much less work in their cultivation.

Our growing nursery stock has been inspected by the State Inspector of Nurseries and Orchards and by him declared apparently free from dangerous insects or diseases. A copy of his certificate will be attached to each shipment.

From the prevalence of San Jose Scale, many states have enacted laws requiring the fumigation with hydrocyanic acid gas of nursery stock shipped into their borders; to comply with these laws we have erected a fumigating house, and are prepared to fumigate all stock shipped if so desired. Patrons living in states where this is required will please notify us when ordering. This law does not include strawberry plants, but raspberry and blackberry plants are included.

Our strawberry plants are all fresh dug at time of shipping, as we do not try to winter any in cellar.

I wish to emphasize this statement as in the past some have claimed that my plants have been held over winter in cellar. Let me say here, that I never did this, nor have I ever seen others that practiced such methods.

In propagating strawberry plants for sale we always set from one year old beds which have not fruited. We also set the different varieties in blocks of several rows each, thereby obviating the danger of mixture, liable where different sorts are set in alternate rows. In digging, we usually take up the entire row, discarding the original plants and such of the tip plants as are not well rooted, therefore, we have no exhausted stock to send out.

In digging strawberry plants our help work in the field when the weather is fit, lifting the plants with "potato hooks," when taking the plants from the soil, stripping off the surplus leaves and runners and tying in neat bunches of twenty-five, (we always aim to put in twenty-six). After tying, the bunch is carefully heeled in until the required number of that variety is dug, thus the roots are not exposed to the air for any length of time.

When the weather is unfit for the work to be comfortably done in the field, the plants are picked up in baskets and carried to the packing house or other shelter, where they are stripped and bunched as before described. But after the plants have been handled in this way, the roots never straighten out so nicely as when bunched at once upon being taken from the soil; thence, I think the plan of stripping and tying in the field preferable, notwithstanding others claim to the contrary.

Experienced strawberry growers know that a slightly wilted plant is much surer to grow than one that has been kept too moist and packed with too wet moss or other packing material. There is nothing that will cause strawberry plants to heat in shipping quicker than to have them too wet when packed.

By this I do not mean to infer that we purposely wilt our plants, or aim to pack them too dry, for we mean to have our moss just right; I don't want our customers to feel that the plants are permanently injured if slightly wilted.

Of course, sometimes our packages get broken in transit, through careless handling, and if found in such condition upon delivery, our patrons should refuse to accept and pay charges upon the same, notifying me at once, then we stand a chance of collecting damage from the transportation company, but if once accepted it is hard to collect damage. Also if plants have been delayed and have been an unreasonable length of time on the road, do not accept them, as they are quite liable to be injured, especially strawberry plants.

It will be a great help to me if my friends will speak a good word for my plants, if they have the opportunity, and it will be thoroughly appreciated.

If more than one catalog is received, please hand to some one whom you think will be interested in small fruits.

Mulching or Winter Covering

As soon as growth ceases in the fall, and before ground freezes hard, the surface of field should be well covered with some sort of mulching, either long straw, wild hay, corn stalks, or other litter, if free from foul weed seed, will answer the purpose. We have grown several acres of sowed corn on purpose for this covering, and find that it works quite well. We sowed quite early, about the middle of May, broadcasting about one and one-half bushels per acre, and allowing the crop to stand until thoroughly ripened before mowing with machine, leaving on the ground as it fell until just about time to use as covering, when it was taken up with a horse rake and hauled onto the strawberry field. We find that this material "stays put" better than the wild hay, as we sometimes have very high winds and have had to replace the hay, and in some part of the field this second handling was worse than the first, on account of its having been rolled

and twisted into all manner of shapes. For this reason I would advise spreading hay or straw when slightly damp, if possible, and place a little soil upon the top at short intervals, which will help to keep it in place in case of high wind.

Some advise using coarse stable manure as a covering, and if free from grass seed this might be advisable, as it would both fertilize and protect the vines from frost. However, I generally "fight shy" of stable manure on plants that I wish to fruit the second season or for longer period, as I have sometimes seen a good stand of clover and timothy on what was supposed to have been a strawberry field.

As soon as growth commences in the spring this covering should be taken nearly or entirely off the plants, but may be left between the rows as a mulch to preserve moisture, also to keep the fruit clean at picking time.

How to Set and Grow Strawberries



HAVE had numerous applications for instruction along this line, and while I have endeavored to give a partial description of my method of culture, I can hardly give any general rules that should apply to all localities.

The Soil and Location best adapted to strawberry culture will vary somewhat in different sections. In a general way we have said that any soil that would grow good

crops of corn or potatoes would grow good strawberries, and while this seems to be a pretty safe rule, it is also true that in order to grow them to the best advantage it is necessary to have soil especially adapted. One of the first requisites of the ripening fruit is moisture, and care should be taken that this is provided. Hence a very dry or loose, sandy soil would not be a safe location, although in moist seasons a fair crop might be harvested. Neither is a stiff clay adapted to strawberry growth, as very early in season it cannot be worked without becoming cloddy, and later is apt to bake, and the plants will suffer more than on sandy soil. It would seem that a sandy loam or loam with slight mixture of clay should if properly handled give the best results.

Drainage—Having chosen a soil retentive of moisture, it next becomes necessary to prepare for proper drainage in case of excessive rainfall, unless the natural lay of the land is such that no water will stand upon the surface. Tile drains are the only practical ones to use. Open ditches will, perhaps, answer this purpose, but are unsatisfactory in many ways. They occupy too much land and are in the way of cultivation, while tile drains are much more convenient and fully as effective. In sandy soil I would advise using tile not smaller than four inches in diameter, and larger for mains, according to length and amount of water to carry. I have laid a good many three-inch tile and have had to take them up and replace with larger on account of their filling with sand. Of course this was where we had only moderate fall.

My idea is to hold the moisture in the soil at a depth of from two to three feet. Then in case of drouth we can by frequent cultivation bring moisture near the surface where most needed.

Frost—In planning your strawberry field care should be taken to avoid frosty locations, such as very low land near marshes or lakes, also valley where there is no chance for circulation of air, as these localities are very liable to heavy frosts, when higher land or that more open to circulation would show very little, if any. A hard frost at blossoming time often ruins the entire crop, hence the desirability of choosing a situation as much exempt as possible.

Manuring—Where the soil is at all deficient in fertility, I would advise using well-rotted stable manure. If this can be applied to the soil the year previous and some cultivated or hoed crop grown, then the following season the land must be in the **best possible** condition for setting strawberries.

Some writers advocate the plowing under of a clover sod in preparation for this crop, but I am always doubtful of this method on account of the white grub, the larvae of the May beetle, which is quite apt to infest such soil. Perhaps if only recent seedlings were so treated, this pest would not trouble, but I would warn all against plowing up an old sod to set strawberries, as the grubs would be almost sure to destroy the greater portion of the plants set. Never plow under green or very coarse and strawey stable manure just before setting strawberry plants, as it would cause the soil to dry out very quickly and will also burn the roots, killing the plants wherever it comes in contact with them. This is important and should be avoided if possible.

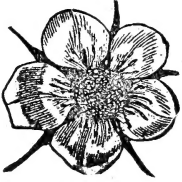
Any good commercial fertilizer may be used; one rich in nitrogen, rather than potash to be preferred. This should be sown broadcast on the land after plowing, and well harrowed into the soil.

Fitting the Soil—Having selected your site with reference to proper drainage and fertility of the soil, begin by plowing as late in the fall as possible before the ground freezes. This late plowing is beneficial in that the soil lays up loose and open, that frost may act upon it more readily, also leaving it in a condition to absorb more moisture in the spring, which may be drawn upon later in the season in case of drouth. It also tends to kill a great many insects which live over winter in the soil, some of which are quite troublesome and injurious to strawberry growth. The white grub is undoubtedly the worst of these, but as they seldom, if ever, lay their eggs in freshly cultivated soil, if my previous suggestions regarding the preparation of the site have been followed there will be no danger.

I like to plow quite deep where there is good depth of soil, eight inches at least, unless this brings the subsoil to the surface, which should not be done under any circumstances. As soon in the spring as the season has fairly opened, just as early as the soil will work up mellow, we harrow the land with a springtooth harrow (any other implement that will do the work thoroughly will do as well). There is not much likelihood of doing this part of the work too thoroughly, as it is much easier to properly fit the land before setting the plants than afterward. We generally harrow with the furrows first then diagonally each way. I would then immediately follow with a heavy roller, or if you have no roller at hand, a plank drag (or "float," as we call it) heavily weighted will do as well. This firming of the soil is important as it is almost impossible to set plants properly if the soil is not reasonably level and firm at the surface.



Strawberries



**Perfect
Blossom.**

All Strawberry blossoms are either staminate—also called perfect—or pistillate, generally called imperfect.

The imperfect varieties which are all marked (Imp.) in catalog, should have a perfect variety, marked (Per.) set every third or fourth row to properly pollinize the blossoms of the imperfect sorts.

There seems to be a mistaken idea with some that this mixing of varieties is necessary with the perfect as well as the imperfect sorts; but this is not so. The perfect sorts are self-pollenizing and will bear as well if set by themselves.

When the imperfect sorts are properly pollenized they are considered by some as more prolific. However, this may be there surely is no reason for any prejudice against them.

Success depends in a great measure upon getting healthy stock, true to name. This is the kind we always aim to send out.

If by mail, add 10 cents per 25, 25 cents per 100, for postage. At thousand rates, by express or freight.



**Imperfect
Blossom.**

Some of the Newer Varieties

I have no really new variety to offer this season but under this head I have listed some of the newer sorts that have become standard.

Gibson (Per.)—This is not the old variety of that name which originated in Eastern New York several years ago, but it is a local berry of great promise and more nearly resembles the Pocomo than any of the older sorts which I am acquainted with.

It commences to ripen with the second earlies and continues for a long season making a heavy yield of fine fruit.

The fruit stems are large and strong, and the dark green foliage is an ample protection for the blossoms and fruit; having a strong staminate bloom it makes a very good pollinizer for pistillate varieties.

The berry is large and regular in shape, holding its size well to the end of the season; its color is a deep rich red all through from surface to center; its flavor is fine, being neither too sweet nor too sour, but just right for table or canning.

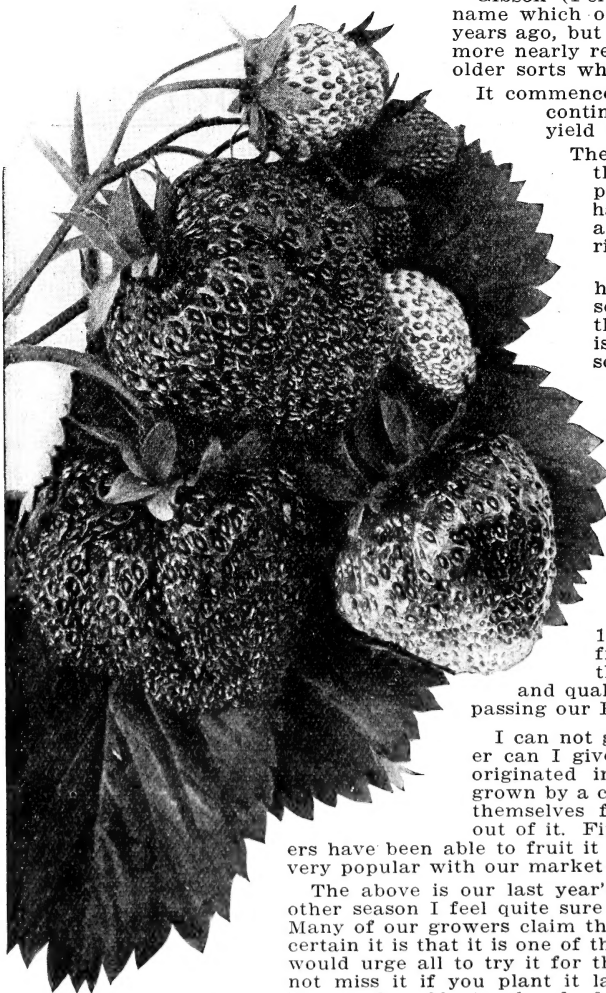
In manner of plant growth it very closely resembles Pocomo, making a heavy row of very strong and healthy plants, its foliage being of a very dark and glossy green, not a speck of rust to be seen on our rows this season.

It is very hardy in bud and bloom, withstanding spring frosts that very nearly wiped out such varieties as Bederwood and Warfield on adjoining rows.

This sort was first catalogued in 1911 and I saw some large fields of it fruiting the past season, and I must say that for an all round good berry, yield and quality considered this was the "limit," surpassing our Pocomo both in yield and appearance.

I can not give the parentage of the Gibson, neither can I give its exact origin, but it seems to have originated in our county, (Berrien), having been grown by a colony of German farmers who kept it to themselves for several seasons making big money out of it. Finally it became known and other growers have been able to fruit it until at the present time it has become very popular with our market growers.

The above is our last year's description and after watching it another season I feel quite sure that it is only an **Improved Pocomo**. Many of our growers claim there is no difference. Be that as it may, certain it is that it is one of the **best sorts** we are growing today and I would urge all to try it for themselves, and I feel sure that you will not miss it if you plant it largely for market or for home garden. Twenty-five, 20 cts.; hundred, 60 cts.; thousand, \$4.00.



Gibson.

Chesapeake (Per.)—This comparatively new variety I have received from the introducer, W. F. Allen, of Maryland, whose description is as follows:

"This variety is as late as the Gandy, and more productive; furthermore, it will thrive and bear an elegant crop on soil entirely too light to produce good Gandy berries. It is equal to the Gandy in size, superior to it in firmness and shipping qualities, and in eating qualities the Gandy is no comparison. In flavor it ranks with William Belt, Brunette and others of that class. Therefore, in the Chesapeake we have attained to a greater degree than in any other variety, three of the strongest points that go to make up a valuable commercial berry—these are firmness, quality and lateness. When these good points are added to the fact that it is of uniformly large size, very attractive in appearance, and being one of the most healthy and vigorous growers, puts it nearer perfection than has yet been reached by any other berry, and I can conscientiously say that if it succeeds in other sections as it does here, it is the best strawberry in the world today."

This has proven to be one of the very best late berries that I have ever tried, but as it makes only a few very strong plants it is not profitable for the plant grower.

Every year we have sold short on this variety and last spring I sent again to Mr. Allen for plants for my own setting, but for some reason, presumably their earlier season, I lost nearly all of them, consequently I have only a limited supply to offer for coming season. Twenty-five, 35c; hundred, \$1.00.

The Heritage (Per.)—This is a new seedling strawberry, originated by Mr. J. E. Heritage, Marlton, N. J., and this is his description of it: "The plant is very large; of extremely heavy texture, some single crown plants carrying foliage with a spread of 20 or 22 inches. Deep rooted and extremely free in fruiting, beginning to ripen its fruit about early mid-season, and continuing to very late. Another prominent feature is that the fruit stems continue to shoot so late that during the early picking season there are many blossoms, which feature indicates to the experienced grower their long season of productiveness. The berry is dark, shiny crimson to the center. Has a perfect blossom. Carries an unusually heavy green calyx (adding decidedly to its market value). Extremely large from the first picking to much above the average for the main crop, and continues large after the better known varieties are gone."

After watching this for several years I find that it very nearly fills the claims of the originator, and is really one of the largest berries that we grow; about the only fault I would find is that the fruit is a little rough, not making the handsome appearance that so large a berry should. Still I think it worthy of continued trial and would advise all wanting a very large late berry to test the Heritage for themselves and feel quite sure that you will not be disappointed.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Norwood (Per.)—This is a new variety introduced the season of 1908, by L. J. Farmer, of New York. I will give the originator's description as given in Mr. Farmer's catalog:



Chesapeake.

"The Norwood strawberry was named and given the first prize by the Massachusetts Horticultural Society at the exhibition of 1906. This strawberry is supposed to be a cross between the Marshall and Corsican, as it came up where the Marshall had been grown and near where Corsican was grown at the same time.

"The Norwood is believed to be the best all-around strawberry in existence. The plant is strong and healthy, making a liberal number of strong runners, but not excessive. The berry is conic and regular in shape; not a cockscombed berry was found this season. The quality is unsurpassed, and the size unequalled, some attaining the enormous size of three inches in diameter. Four such strawberries would fill a box and be crowded. Color, bright red all the way through, growing darker with age, is firm, a good keeper and will ship well. Has a perfect blossom, and holds its size well through the season and remains in bearing a long time. Picked the first box June 18th, and the last one July 18th. The largest berries were found in matted rows or beds, although the plants had received no extra culture."

Although I have fruited this for several seasons I have not been able to get the results Mr. Farmer claims; however, it is a large and strong growing plant and quite prolific bearer of berries that are of good size and quality somewhat resembling the old Jessie sent out by C. A. Green, many years ago. I would recommend it for the home garden.

Twenty-five, 20c; hundred, 75c; thousand, \$5.00.



Fendall (Imp.)—I will give the introducer's description:

"This splendid berry originated in our garden at Towson, Baltimore County, Maryland, in the spring of 1905. It is a seedling of the well-known William Belt. Its claims to public favor are as follows: First, great vigor of plant growth. Second, large size and delicious flavor. Third, great length of bearing season. Fourth, wonderful productiveness. Fifth, splendid root system. Sixth, beauty and symmetry of form. The plant is strong and vigorous, clean and healthy; growing at least two inches higher than any other variety we have in our gardens. Its foliage is a beautiful light green, easily distinguished from any other variety, and as yet has not shown the slightest blemish in any respect. The berries are as large, if not larger, than any other variety grown, and unlike most large varieties in that they are of delicious flavor. In length of season it is certainly remarkable. In 1907 we picked berries from it on the 25th of May and the last on the 10th of July. With the same care and under like conditions, it produced twice as many berries as the Senator Dunlap, Corsican, Glen Mary, William Belt, Marshall, and three times as many as the Gandy. In 1906 it yielded at the rate of sixteen thousand eight hundred quarts per acre. It throws out a great many runners, which root splendidly

in a very short time; in fact, the roots of this variety excel anything we have ever seen in the strawberry line."

This comparatively new variety seems to have been quite successful as a "fancy berry" but like Chesapeake is a poor plant maker and we are unable to grow plants to fill our orders.

The past season we were obliged to return many orders for these, or to substitute something else where the buyer was willing. This year we thought to grow a better stock, but have again been unfortunate, as our block was set on rather low land and our unusually moist season has badly injured them, also the white grubs seemed to have an especial liking for these and consequently we have a very limited stock to offer.

Twenty-five, 35c; hundred, \$1.00.

Highland (Imp.)— "Introduced for the first time last year, the Highland comes before the public with stronger endorsement than most new introductions. For four years it has been fairly tested on the grounds of the Ohio Experimental Station, and found the most prolific of any variety tested." The following is quoted from the Ohio Station Bulletins: "Highland was the most prolific variety in our collection. It is very promising and desirable, especially for the grower who is situated near a good home market. Fruit medium to large, bluntly conical; color bright scarlet; flesh red clear through. Plants very large, strong and vigorous. Flowers imperfect and quite resistant to cold. Highland gives bright promise of being a great business berry and a money maker for even the small planter."

I have a fair stock of Highland for coming season that I can warrant genuine.

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

Ryckman (Per.)—This, a comparatively new variety that I first tried two years ago; I have copied part of my description.

"This variety is noted throughout the country for its immense size and productiveness. It produces an abundance of very large and vigorous plants, and tremendous crops of very large berries. Many extensive growers say that it produces larger crops the second year even than the first. It has also distinguished itself as a great variety for poor soils and fruiting continuously on the same ground for several years. It has netted growers as high as \$300 and \$400 from half an acre and has produced 15 berries to the quart under ordinary farm culture. It ripens in mid-season. Berries are of a bright scarlet color and excellent flavor."

I saw just enough of the fruit last season to satisfy me that it is practically the same as the old New York or Uncle Jim, being a very large and strong growing plant, while the berry is large and light colored and inclined to be soft for long shipping. I have a fine block of these and will offer them very low.

Twenty-five, 15c; hundred, 50c; thousand, \$3.00.

Extra Early Sorts

Under this head I am listing two of our old Standard sorts that I know to be good; also one that is new to me, Missionary.

Luther (Per.)—Or, August Luther, as some prefer to call it, was originated by Mr. A. Luther, of Missouri, and grown by him several seasons before it was offered for sale. The Ohio Experiment Station was first to call attention to it, giving the following report in 1897: "From A. Luther, perfect, unnamed seedling, plants vigorous and prolific, berries medium to large, conical, usually with long slender point, light scarlet, flesh light red, of good quality, valuable for its earliness. Is far more prolific than Michel's Early and far larger. Earlier, larger and more prolific than Rio. It is regarded as the best early variety tested at the United States Agricultural Station.

I shall still place this variety at the head of the list of extra earlies, as I have found nothing yet that I consider better. It has a very pleasing appearance, being of a very bright red color and almost always of perfect shape, a slender rather sharp pointed berry. It ripens evenly, no "green tips," and will ripen its full crop in a very short space of time, this feature making it a good market sort. It is also a very thrifty grower, making a full row of medium sized plants.

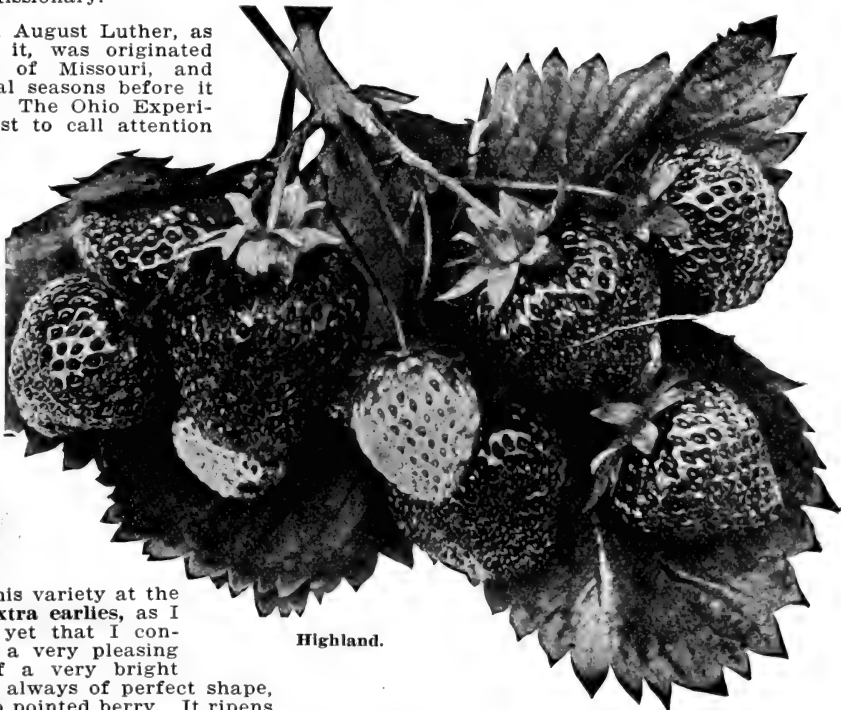
This season we have a good stock of well rooted plants, and I shall recommend it to all wanting a very early berry.

Twenty-five, 15c; hundred, 50c; thousand, \$2.50.

Excelsior (Per.)—An extra early berry. Has given us a good crop of berries. Berry is dark red, of good size, one of the best shippers. It is a good plant maker. Plant healthy, blossom perfect. It is claimed to be a seedling of the Wilson crossed with Hoffman. Originated in Arkansas.

Some growers claim this is the best early market variety, and where dark colored, tart berries are wanted, this sort will surely please.

In direct contrast to the Luther, this variety is a long-season variety and while it ripens its



Highland.

first berries at about the same season as Luther, it continues much longer in bearing.

Twenty-five, 15c; hundred, 50c; thousand, \$2.50.

Missionary (Per.)—This is a comparatively new variety from the South. I received plants from Hall, of Maryland, last spring and will give his description:

"Missionary hailed from the South. Plants vigorous, healthy and strong grower and a great plant maker. Plants medium large, and berries large and hold their size well through the season. Is early, but not quite as early as Excelsior and Hoffman. It is an enormous bearer, firm and a good shipper; it is planted here extensively for the market."

I have not seen it in fruit, but it seems a thrifty grower and I think it worthy of a test by those wanting an extra early sort. I have only a limited supply.

Twenty-five, 15c; hundred, 50c; thousand, \$3.00.

HELEN DAVIS (Perfect)

"One of the largest strawberries ever produced. Wonderful yielder and every berry smooth and well shaped. A grand strawberry. Plants are strong and healthy, a good plant maker; produce strong fruit stems and many of them. The fruit is a sight to see. We seldom find a strawberry, especially an early berry having so many superior points as Helen Davis.

Plants. Hardy and strong.

Fruit. Extra fine quality and appearance.

Size. One of the very largest of strawberries.

Color. A beautiful, rich dark red, clear through.

Shape. Perfect and smooth.

Flavor. In a class by themselves, a peculiar velvet quality not found in others.

Productiveness. One of the most, if not the most productive strawberry grown.

Season. Early and continues to bear all through the strawberry season."

This is a new sort that has been very highly praised and largely advertised. I have not seen it in fruit and only give others description. Our stock came originally from the introducer.

Twenty-five, 25c; hundred, 75c; thousand, \$5.00.

Second Early Varieties

Senator Dunlap (Per.)—I shall head the list with this grand berry for it certainly is the best berry of its season.

In other years I have tried to describe this variety and have said that it might be called a perfect flowered Warfield. Altho it is very distinct, it is quite similar in form and color of berry, also in manner of plant growth.



Senator Dunlap.

If grown on very strong and moist soil in matted row it will be disappointing as it will set too many small plants, and the berries will be small and of poor quality; however, if kept in a narrow row, the fruit is large and of high quality.

I have tried for several years to get a good halftone of the Senator Dunlap, but have not been very well pleased with the result. Above is from a photo of a cluster of berries taken about the middle of the past season, too late to show the largest berries and when fruit was overripe. This illustration is true to life as showing type of berry and productiveness.

The introducer of this variety had this to say of it when first offering it:

"We have the greatest confidence in this variety and believe that it will in the near future take its place among the more prominent standard kinds. The plant is almost perfect in its way. We have several times called attention to its toughness and ability to endure hardships. It is small, slim, very deep-rooted, and as great a runner as the Warfield. With us it has always proven very productive. The fruit is generally large, never of the largest size, however; is conical in form, regular, never misshapen, bright or slightly dark red, very glossy, firm, a splendid keeper and shipper, most excellent in quality, and one of the best canning berries we have ever known. Its season is second early and it bears a long time."

The elapse of time has fulfilled his prophesy for today there is no known variety that is so universally popular nor one that is so extensively grown as the Sen. Dunlap.

Some one has said that this was the safest variety for the new beginner, as it would bear fruit in spite of neglect and ill treatment, and while this may be true in a degree it is also

true that it will well repay the most careful culture.

Another feature I wish to mention is its habit of deep-rooting. In this feature it has its superiority over the Warfield, which is a shallower rooted plant and is more easily injured by freezing or drouth while the Senator Dunlap is able to withstand either in a great degree on account of its deep roots.

I have always recommended Senator Dunlap, for either market or home use, and I wish I were able to describe its merits more fully; however, no one can make a mistake in testing it, as it is one of the best, making an excellent pollinizer for second early sorts, or doing equally well planted alone.

While the season of ripening is given as second early, it in reality could be classed as a mid-season variety, as it has a very long fruiting season. Twenty-five, 15c; hundred, 50c; thousand, \$2.50.

Warfield (Imp.)—This variety is still very popular as a market sort, although the Senator Dunlap has practically unsurpassed its position at the head of the list, which it held before the advent of that very popular sort. The two together make a good team, and are quite similar in appearance when in the crate. However, Warfield is a richer berry and a little deeper red in color, thus making it one of the very best for canning; it also holds its color in the can which is a very important point in its favor. In plant growth this variety is quite similar to Senator Dunlap, except it does not root so deep on light sandy or gravelly soils,

and is more liable to suffer from drouth. While the individual plants are quite small and usually have only one fruit stem, it is remarkable the number of quarts produced by a lightly matted row on good strong soil.

Twenty-five, 15c; hundred, 50c; thousand, \$2.50.

Splendid (Per.)—Originated at Sterling, Illinois. Plant a vigorous grower, equal to Warfield in this respect. Blossoms perfect. Berries are borne on tall fruit stalks, and are large, firm and of fine color. Ripens evenly all over, globular, very productive. Few, if any blanks. No mistake can be made in using this variety to pollinize Warfield, Crescent and other pistillates. Early to mid-season.

We have a good block of these for coming season, and I would recommend it as a first class variety for market where quantity is more of an object than quality.

Twenty-five, 15c; hundred, 50c; thousand, \$3.

Beder Wood (Per.)—This is generally conceded to be one of the very best early varieties for home use or market. It is a splendid grower, making a large number of strong runners. It has a perfect blossom, and is immensely productive. Fruit of good size, light red, medium firmness and good quality. One of the best to plant with early blooming pistillate varieties.

While this sort could hardly be classed as a firm or hard berry, it has a peculiarly dry or spongy nature which enables shipping it long distances without injury. It is an excellent plant-maker, setting freely and rooting deep; thus being able to withstand drouth. I should like to emphasize what I have said in its favor and again recommend it as paying market sort.

Twenty-five, 15c; hundred, 50c; thousand, \$2.25.

Haverland (Imp.)—This is one of the best early market sorts, and seems to do well in all sections. It makes a thrifty plant growth.

Berries are large and of a peculiar longish shape, though very regular and even, holding out well to the end of the season. The color is rather light red, which may be considered a fault by some, but they make such a handsome appearance in box or basket that they nearly all sell for top price in market. About the only weak point I have discovered in the Haverland is that the fruit stems are tall and unable to stand up under the weight of fruit as it ripens, consequently they should be mulched with straw to keep them from the dirt. This peculiarity of growth makes fine picking, as the berries lay out in sight requiring no movement of the vines to find them. Another good point in their favor is the ability to withstand frost at blooming time often bearing a full crop of perfect fruit when other sorts are badly damaged. There is such a demand for plants of this variety that the supply nearly always fails.

There have been a great many spurious or mixed plants sent out from this section as Haverland; we warrant ours true to name. If you are unacquainted with this sort, try a few and see what a fine market berry they are. A little too soft for distant shipment, but they will stand picking before fully ripened and will color up in the crate, after picking. If handled in this manner, Haverland will stand shipment as well as any of the larger varieties.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Lovett (Per.)—No person need hesitate to plant this variety for either home use or market, as it succeeds generally in any soil or locality. It is one of the tough, hardy varieties that will never disappoint the grower. It has a perfect blossom and bears heavily. The fruit is medium to large size, conical, firm and of good color and quality. One of the best to use as a pollinizer for pistillate sorts.

Twenty-five, 15c; hundred, 50c; thousand, \$3.

Mid-Season to Late Varieties

Bubach (Imp.)—Fruit large and handsome, roundish, conical, bright scarlet, moderately firm, of fair quality. Plant a strong grower, with a large healthy foliage and very productive. Succeeds on light or heavy soil. Desirable for home use or near market. One of the best. Season early to medium. This is an old standby, and is deservedly popular. In plant growth it is vigorous, but does not throw out excess of runners, hence it is best grown in hedge or half-matted row.

This variety is perhaps as well known and as widely disseminated as any grown, and while it is perhaps not as popular as it was several years ago, still we always run out of stock long before the close of the season. While it is hardly firm enough for long distance shipping still it will hold up for ordinary marketing, and is one of the largest berries grown.

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

Wm. Belt (Per.)—From M. Crawford's catalog: "Introduced by us about eleven years ago. We might describe it by saying that it has every good characteristic save one—it is rather subject to rust. Although its single failing is well known it is extensively planted by a large number for its many excellencies. We have seen it produce berries over nine inches in circumference in sixty days from the time it was transplanted. The plant is large and sends out plenty of strong runners. It is very productive."

"A native of southern Ohio, and named for its originator, now deceased. For fourteen years this has been before the public, and almost from the first it took rank as the best of all in flavor. It is also superior in beauty, size, and productiveness. The color is bright red. The first berry to ripen on each stem is cockscombed, but the others are conical. The plant is grand, and the foliage abundant and healthy. There was a time when it was subject to rust in some localities, but we have heard nothing of it lately."

With us this has proven a valuable variety, giving heavy crops of fine fruit.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Marshall (Per.)—The following is what the originator says: "Three thousand baskets of berries picked on one-third of an acre last year. The berries are very large size, fourteen filled a basket. Color, very dark crimson throughout; fine flavor and fine grain, and good keeper, which commends it for garden or market purposes; blossoms perfect."

The plant is a vigorous, healthy grower; berries dark crimson when ripe.

I also clip the following from another catalog: "Plant is large and strong; very prolific; 110 berries have been counted on a single plant. The fruit is handsome and attractive; very large, 14 berries having been known to fill a quart box. Of perfect form; dark crimson when fully ripe, and is thus valuable for market. Quality and flavor excellent. It will produce fruit for 25 days' picking."



Glen Mary.

Readers of the Rural New Yorker, will recognize this as the variety grown at "Hope Farm" and by Editor Collingwood considered the best. In quality it is really the standard of excellence and if given a good soil and proper treatment will make a heavy yield of very large and handsome fruit.

It needs plenty of manure and thorough culture in order to do its best, as it does not thrive under neglect. We have only a limited number of plants to offer this season and suggest that you place your order early if you desire to get this "best of all" strawberry.

Twenty-five, 35c; hundred, \$1.00.

Glen Mary (Per.)—This variety was originated in Chester Co., Pa., and introduced in 1896 by W. F. Allen, of Maryland, whose description I give below.

"I introduced this variety twelve years ago at \$10.00 per 100. Throughout New England and the West it is the leading berry of the list today. We sell more plants of it year in and year out, than any variety that we grow. I do not recommend it for this peninsula, or for the South, but for New England, West and Northwest. I doubt if there is any variety that will equal it in every respect. It is only semi-staminate, but as its blossoms carry enough pollen to fruit its own berries, it is listed as a staminate variety, but I would not recommend it to plant with pistillate varieties as a pollenizer. They are big, dark red beauties, with prominent seeds of bright yellow; the meat is rich and juicy and crimson in color. They are of such high flavor that when once eaten more are wanted. As a good, firm shipper, it is very popular for fancy local market, there are few, if any, better. For this reason they are popu-

lar with both the large and small growers. It has no particular choice of soils, and does not require petting. The roots are long and well-developed, providing plenty of moisture during a drouth. The foliage is large, upright in growth, dark green in color, leaves nearly round with dark glossy surface, making a beautiful appearance in the field. The fruit stems although large and strong, are weighted to the ground by the large clusters of berries; for this reason they should be well mulched to keep them clean. The berries are just the right size to make a fine appearance in the crate, and you do not have to be timid about asking a big price for them, as everyone will pay extra to get extra fine berries."

A few years ago I sold myself short of this variety, and bought plants of a neighbor for my spring setting, he claimed that his stock was pure, but I discovered later that I had something more nearly resembling Brandywine than any variety that I am acquainted with, and upon inquiry I found that a good many of our growers had this spurious sort instead of Glen Mary. When I decided this for a certainty, I dropped the variety from my list, and sent to Mr. Allen for a new start of the genuine article, and this season I have a nice stock of plants that I can warrant true to name, and would recommend it as a profitable market sort.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Pocomoke (Per.)—The originator says: "Originated near Pocomoke River; was found growing where there had been some Wilson and Sharpless strawberries dumped, and is supposed to be a seedling of the old Wilson, crossed by the Sharpless. The berry is round, conical, and resembles the old Wilson, but is much larger. One of the best varieties in existence, not only for its enormous productiveness, but on account of its beauty, adaptability to all soils, its foliage enduring the dry, hot weather (which quality is rare), its large size, its deep red color, its firmness, its high flavor. The plant is a strong, robust grower, with deep roots and lots of them, perfect blossoms and is an enormous yielder of large red berries. It ripens evenly and is one of the best shippers yet produced."

The above was taken from description given in previous issue of this catalog and I only wish to emphasize what I have formerly said in favor of Pocomoke.

I have already stated in my description of Gibson, that I can see no apparent difference between that variety and Pocomoke. Under either name I consider it the best mid-season variety we are growing. I still have our blocks distinct and shall continue to list both until other authorities admit their sameness.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Lancaster, O., Dec. 10, 1912.

C. E. WHITEN'S NURSERIES,
Bridgman, Mich.

Dear Sirs:—Will you kindly send me the name of a good fruit paper? If you look over your last season's book you will find my order for three varieties of Raspberries and eight varieties of Strawberries. They all grew fine. I didn't lose a plant. Kindly send your next spring's price list so I can place my order early. Hoping to hear from you by return mail, I remain,

Your customer,

D. P. YOST.

Late to Very Late Varieties

Aroma (Per.)—While fruit is quite similar to Gandy, the growth is very different, making fewer plants and stronger ones. The berries are large to very large, and hold up well to end of season.

"It has been claimed to produce twice as much fruit as Gandy, but I would hardly think it probable, where both are grown under the same conditions. The quality of fruit is good, the color of berry is against it where dark colored fruit is the standard of excellence, as it is more like Gandy, inclined to be light. I can personally recommend this sort to anyone wanting a late market berry."

If large bright colored berries, late in season are an object to you, then try Aroma, and you will be pleased.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Brandywine (Per.)—This has proved so satisfactory with all who have grown it that it is consequently in large demand. It is comparatively new and of great value by reason of its productiveness, large size, beauty and good quality, which renders it especially desirable for the home garden. The berries are glossy crimson, very handsome, firm and solid, excellent in quality, with fine aromatic flavor. The berries color all over evenly and retain a good size to the last, ripening in succession, and every berry maturing fully. Plant is remarkably vigorous, hardy and exceedingly productive and its foliage is long, clean and healthy. The amateur will delight in such a superb variety, which with his good soil and careful culture will give him magnificent returns. Midseason to late. It is also an excellent pollinizer for midseason to late pistillates.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Sample (Imp.)—I still consider this one of the best late sorts that we have on the list today and it seems to continue very popular wherever it has been grown.

The introducer says: "Large size and fine quality; quite firm; continues a long time in fruit. The berries are large to the last. For the market-man it is the best strawberry ever grown. I have nothing in my grounds that will begin to fruit like it. It will yield as many berries as the Haverland, and will average as large as the Bubach. Colors all over at once. A berry that will do that is the best one yet found. There is not a weak spot in it. Foliage perfect, fruit perfect."

I feel perfectly safe in recommending this sort to my friends for either home use or market, where a late berry is desired. While we have a fair stock of plants I would advise ordering early as we always run short of Sample long before the close of the season.

Twenty-five, 20c; hundred, 60c; thousand, \$4.

Uncle Sam (Per.)—This new seedling berry originated in Ohio and is a promising sort. The introducer's description is as follows: "Large to very large, will average larger than Bubach; ripens with the Bubach, but has a much longer season, a perfect bloom, and is much more prolific. Have picked Uncle Sam berries as early as May 22, and on July 5, of the same year, picked berries one and one-half inches in diameter. There are no green ends, buttons or nubbins on first year's fruiting. Color red, quality delicious, foliage strong and vigorous; berries of Uncle Sam can be picked two weeks after most other berries are gone."

It is a strong staminate, and is a good pollinizer for late pistillate sorts.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Gandy (Per.)—Has always been popular as a late market variety; does not do well on light sandy soil, and is apt to be disappointing when planted in such location. I have no hesitation in recommending this to all as one of the best late sorts for home use or market. The only fault that I ever heard found with it was its "shy bearing" when planted on uncongenial soil.

While there are many plants shipped from this point each season as Gandy, which are not true to name, I will warrant my stock to be the genuine Gandy.

Twenty-five, 20c; hundred, 60c; thousand, \$4.00.

Stevens' Late Champion (Per.)—This new late variety originated in New Jersey; seems to do well wherever tested. The originator describes it as follows:

"Very large, fine flavored, bright color, good shipper, a fine bed maker, a heavy yielder, fine foliage."

"It ripens later than the Gandy Prize, and lasts until the Fourth of July any season. It has never shown any sign of rust. The cap, which is double, has always kept green until the last of the season."

I have grown this variety in a limited way for several seasons, and think it fills the originator's claims in a large degree. It certainly is a very strong and healthy grower, and a prolific bearer.

Above was taken from a previous description and I find that this variety is still considered one of the best market sorts by a good many growers and I would recommend it to those growing for market where quantity more than quality is desired.

Twenty-five, 20c; hundred, 60c; thousand, \$3.50.

Blaine (Per.)—This is a new variety from Iowa, and with me has much the appearance of Gandy, both in plant growth and in berry.

The originator says: "It is a cross of the Beder Wood and Lovett. It is a perfect blossom berry, has large, stalky plants, very healthy foliage, light green color and broad leaves. Makes plenty of runners for a good crop. The berry is very large, firm and of the best color and flavor. It is the best shipper I have ever raised, and I have tested over 100 varieties. Ripens just after the Aroma. When the Aroma is gone I begin on the Blaine. I have the Aroma downed on three points—size, flavor and shipping qualities."

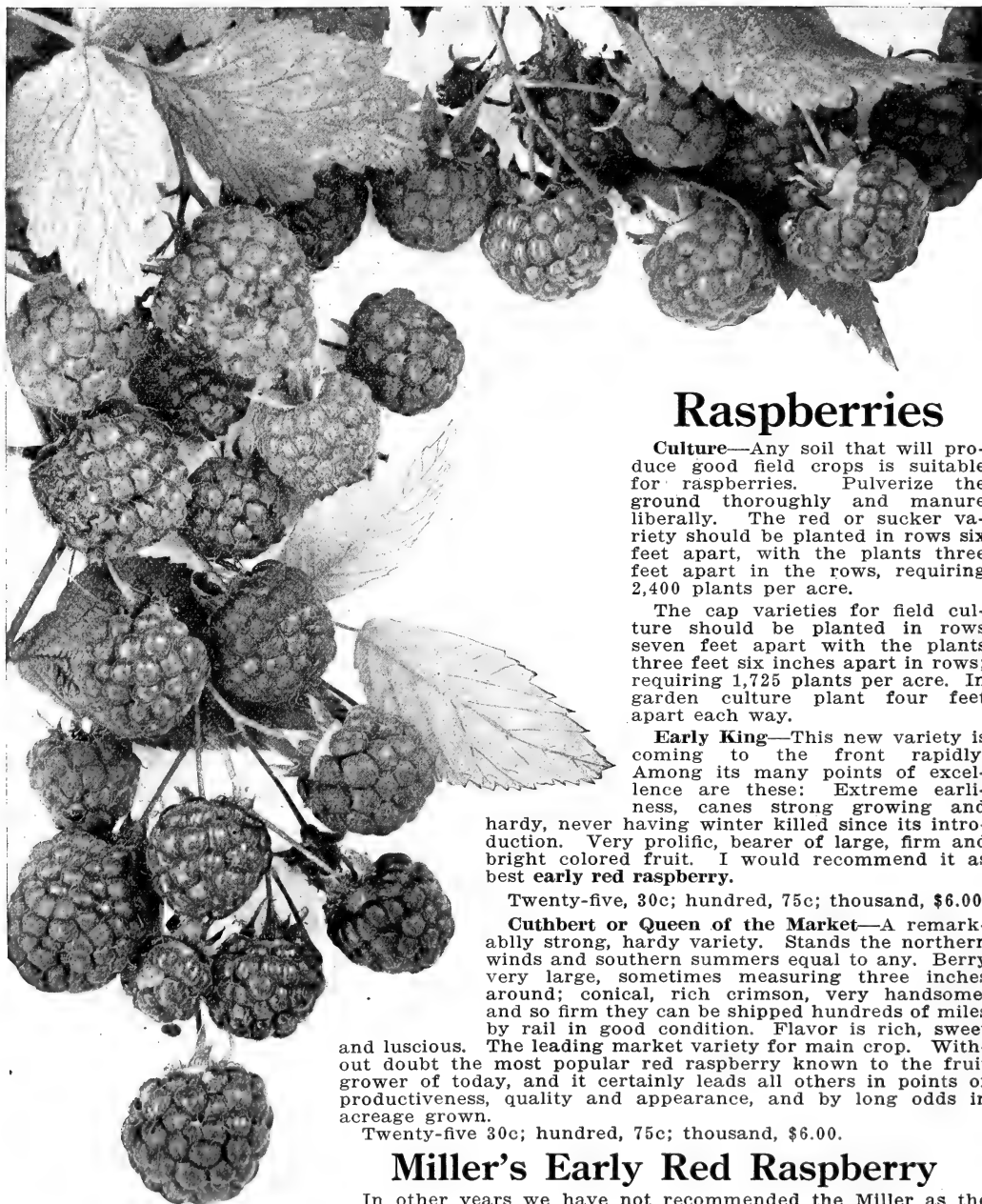
I have not been able to give this variety a fair fruiting test as we usually take up all or nearly all plants in spring.

Once plants left to fruit were injured by flood and again by being overrun by chickweed causing the crop to go to "buttons." We get a much better growth of vine on the Blaine than on the Gandy, and our block of this sort is looking fine at this time.

I sold Blaine in season of 1910 to an old customer in the vicinity of St. Louis, Mo., with the promise that they should be as late as the Gandy and a better and more prolific bearer.

He writes under date of Nov. 2nd, 1912, that he found it all that I claimed and a better berry than either Gandy or Steven's Late, selling same price as Gandy and 15c higher than Stevens. My stock is not large, but will sell low.

Twenty-five, 75c; hundred, 50c; thousand, \$3.25.



Early King.

Miller was best of the two. It ripens early, nearly 10 days ahead of Cuthbert and is of good bright red color not turning dark as does the Cuthbert. I copy part of this description from another catalog:

"This red raspberry originated in Sussex county, Delaware, and is very popular with fruit growers in that section, who have preferred to market the fruit rather than sell the plants. Berry nearly as large as Cuthbert, holding its size to the end of the season. It is round, bright red, does not fade, but will hold its color after shipment longer than any other red variety; core very small; does not crumble, making it the **firmest and best shipping berry in existence**; has not the flat taste of some varieties, but a rich fruity flavor entirely its own. To sum up, it possesses the following points of superiority as compared with other varieties: 1st—**Ripens with the very earliest.** 2nd—**Productiveness equal to any.** 3rd—**Has no equal as a shipper.** 4th—**Perfectly hardy.** 5th—**Quality and size unsurpassed.** 6th—**Attractive color.**"

I would recommend Miller for a market sort. We have a large stock of plants for this season and have made prices very low. Twenty-five, 25c; hundred, 75c; thousand, \$5.00.

Raspberries

Culture—Any soil that will produce good field crops is suitable for raspberries. Pulverize the ground thoroughly and manure liberally. The red or sucker variety should be planted in rows six feet apart, with the plants three feet apart in the rows, requiring 2,400 plants per acre.

The cap varieties for field culture should be planted in rows seven feet apart with the plants three feet six inches apart in rows; requiring 1,725 plants per acre. In garden culture plant four feet apart each way.

Early King—This new variety is coming to the front rapidly. Among its many points of excellence are these: Extreme earliness, canes strong growing and hardy, never having winter killed since its introduction. Very prolific, bearer of large, firm and bright colored fruit. I would recommend it as best **early red raspberry**.

Twenty-five, 30c; hundred, 75c; thousand, \$6.00.

Cuthbert or Queen of the Market—A remarkably strong, hardy variety. Stands the northern winds and southern summers equal to any. Berry very large, sometimes measuring three inches around; conical, rich crimson, very handsome, and so firm they can be shipped hundreds of miles by rail in good condition. Flavor is rich, sweet and luscious. The leading market variety for main crop. Without doubt the most popular red raspberry known to the fruit grower of today, and it certainly leads all others in points of productiveness, quality and appearance, and by long odds in acreage grown.

Twenty-five 30c; hundred, 75c; thousand, \$6.00.

Miller's Early Red Raspberry

In other years we have not recommended the Miller as the best Red Raspberry, but have been inclined to give first place to Cuthbert. However, the past season growers in this vicinity claim

St. Regis Everbearing Red Raspberry

This was introduced several years ago by J. T. Lovett, of New Jersey, and at first I did not **take any stock in it**, for I thought it was impossible for plants set out in April to bear ripe fruit in June for an ordinary Red Raspberry bush will die back when transplanted in the spring sending up new shoots from the roots. I have changed my mind since planting quite a lot last spring for those set out in April had quite a show of fruit in early summer and continued bearing until killed by frosts; the later crop coming on the tips of the new growth.

St. Regis is a sure enough "everbearer" and quite distinct. The new canes do not die back after fruiting in the fall as second growth canes on ordinary varieties usually do, but keep green through the winter, bearing a full crop the following season. It is also very hardy, having withstood the hardest winters.

I am showing a new halftone which was photographed on Oct. 16th, 1912, from plants set in April, previous.

Through a mistake of the engraver this cut was made too small to show the berries to good advantage, however, it does show the prolific and continued bearing of this second growth, there being ripe berries and blossoms when the photo was taken, just before killing frosts.

I will add an extract from report of Special Fruit Committee, N. J. State Horticultural Society.

"The St. Regis Everbearing Raspberry is truly a wonder and marks a great advance in Red Raspberries. The berries are of good, though not extra large size, are bright in color, very firm and of quality that equals the old Cuthbert. Its distinguishing characteristics are

its remarkable vigor of plant and its everbearing property. It is the first red raspberry to ripen, giving ripe berries the past season on June 20th and continue to yield, without intermission until late October; and its summer and autumn crops do not consist of a few scattering berries, but good to heavy pickings all the time. One party who had a small patch—say half an acre—picked and shipped from it two to three pickings each week for four months, and his profits were enormous. The berries in late summer and autumn do not differ perceptibly in size, color or quality from those that ripen in June.

The last fruit that we picked of the St. Regis was on November 7th, at which time the plants were in full foliage, although previous to this the mercury had registered 28 degrees."

Twenty-five, 75c; hundred, \$3.00; thousand, \$25.00.



The famous St. Regis Everbearing Red Raspberry. Observe both blossoms and ripened fruit.

This photograph was taken Oct. 16, 1912. Plants set in April, same year.

Purple Cap

Columbian—The Columbian is a variety of the Shaffer type, of remarkable vigor and productiveness. It is hardy and propagates from tips. Fruit very large, often an inch in diameter, shape somewhat conical, color dark red, bordering on purple; adheres firmly to the stem and will dry on the bush if not picked; seeds small and deeply imbedded in a rich, juicy pulp with a distinct flavor of its own, making it a most delicious table berry.

In my estimation this is the most valuable purple cap yet produced, as it is more hardy in cane and certainly more prolific, and fruit of larger size than any other sort I am acquainted with.

Twenty-five, 50c; hundred, \$1.75; thousand, \$15.00.

Haymaker—"The Haymaker is a purple cap, not so dark as Columbian or Shaffer, and much larger and firmer than either of those varieties, never crumbles and stands up well for shipping. Sample crates have been shipped to distant points with entire satisfaction. It is a berry to grow for either home use or market. The originator has found it the most profitable berry ever raised for market, and has never yet been able to supply the local demand. So much of a favorite has the Haymaker become that local growers have said that it ruined the sale of other varieties. Very popular as a canning berry."

Twenty-five, 50c; hundred, \$1.75; thousand, \$15.00.

Black or Cap Varieties

Plum Farmer—While this is not a brand new sort, having been grown in New York State for several years, it is not widely disseminated.

I am offering it this season for the first time, and will give the introducer's description:

"This grand blackcap raspberry was found by us in a lot of blackcap plants received from Ohio several years ago. We have fruited it and sold plants from it for nearly fifteen years, and in all this time, while we have tried numerous varieties, we never have seen anything that could near approach it in value. The plants are fine growers, being more free from diseases of blackcaps than other varieties; are clean silvery bluish in appearance when ripened in the fall, and when loaded in fruit are a sight to behold. It ripens very early and most of the fruit is produced in one week. It will outyield any blackcap we have ever seen. The

fruit is very large, thick meated and very firm, making a good berry to evaporate or ship to distant markets."—L. J. Farmer.

Although I have never fruited this sort, I have confidence in its merits and would advise all wanting an early blackcap to give it a trial.

Above description is taken from a previous catalog. We had a chance to see this in fruit the past season and have no hesitancy in saying that it is easily the best blackcap we have growing today. Cane is healthy and strong growing, has many laterals, thus giving lots of bearing wood insuring its heavy bearing, while the berry is very large and of fine quality.

Twenty-five, 35c; hundred, \$1.25; thousand, \$12.00.

Cumberland—This has been named the "Business Blackcap" by the introducers, and has been loudly praised by all who have grown it. It is a very large berry of fine flavor, rich and sweet, and of jet black color with slight bloom. The cane is of extreme hardness, very strong growing and free from anthracnose.

It is a mid-season variety following the early sorts, but ripening ahead of Gregg.

Without doubt this is the most popular Black Raspberry grown today. There being perhaps twice the acreage set to Cumberland in this locality of any other sort.

I do not mean to say that it has no failings, because I do not think we have reached "perfection" as yet in any one variety. The worst fault I find with Cumberland is that in a wet season it is apt to become water-soaked and of poor quality. It is the heaviest growing bush of any that I am acquainted with and stands up well with its immense loads of fruit. My friends will make no mistake in planting this for either home use or market.

Twenty-five, 30c; hundred, \$1.00; thousand, \$8.00.

Gregg—My experience is that Gregg is quite hardy on well drained soil, but does not love wet feet and winter kills badly on wet ground. The berries are covered with a whitish blue bloom, which in its first dissemination was mistaken for mould or mildew and hindered the sale of fruit on the market; but since becoming better known, this sort is very popular in all sections, and I do not hesitate to class it as the best late market sort.

Twenty-five, 30c; hundred, \$1.00; thousand, \$8.00.

Dewberries

There is great diversity in methods given for the cultivation of this fruit. Some say train to stakes or wires; others to let lie on ground and grow at will, while still others advise cutting off all the growth to the ground immediately after fruiting, then allowing the bush to form for the next season's crop. I have never tried this latter method, but the Lucretia is such a rampant grower (often running 12 to 15 feet) that I have no doubt it would make plenty of wood before the growing season ended. This would be the easiest way to grow, if successful, as it would be very little work to clean out a field after fruiting as compared with having to work amongst the new vines if they should be left from early spring. Of course, the ground would have to be kept cultivated well while this growth was being made, especially in dry location or season.

Lucretia—This is counted as the standard of all dewberries, is earlier than the earliest blackberry and as large as the largest of them. The canes are of great hardness and exceedingly prolific, thriving everywhere, of slender trailing habit and entirely free from disease and insect attacks. The fruit is large and handsome, jet-black, rich and melting; ships well and keeps well. We picked these berries the past season with the raspberries, bringing \$2.00 to \$2.50 per sixteen-quart crate in Chicago market. I would advise my friends all to try at least a few of them in their gardens.

Twenty-five, 30c; hundred, 85c; thousand, \$700.

Blackberries

Should be planted in rows six or seven feet apart and three to five feet in the rows. Keep the ground light and rich. Pinch the canes back when they have reached the height of from two to three feet.

Our blackberry plants are mostly "sucker" plants, except where marked "Root Cutting." These "sucker" plants are dug from between fruiting rows, or where "root cutting" plants have been taken leaving the broken roots in the ground which have thrown up shoots, or suckers as we term them. When properly dug with cross roots, these make first class plants, and prove about as satisfactory as, and at a much lower cost, than "root cuttings."

Ward—Undoubtedly a seedling of the Kittatinny, which it resembles, having all of its good qualities and none of its defects. Healthy, strong grower with sturdy canes producing fine large fruit, black throughout, without core and of excellent quality. Has never suffered from winter injury in New Jersey. An exceedingly prolific sort, the bushes being covered with its fine fruit, producing as many bushels per acre as the Wilson in its prime.

This is a new variety that was listed last year for the first time, although I have fruited it several seasons. I find that it proves quite hardy in bud and cane, withstanding our winters without protection.

To those who remember the old Kittatinny this will prove an acceptable variety as it is much like that sort in manner of growth and in quality of berry, while it is not troubled with "orange rust" which has practically destroyed the Kittatinny.

My stock of this sort is limited and I will offer while they last at following prices:

Twenty-five, 35c; hundred, \$1.25; thousand, \$10.00.

Eldorado—In other years I have headed our list with Eldorado, but this time I am going to give it second place as I think Ward is fully as good a berry in every way, and much more productive.

However, I do not mean to infer that Eldorado is not a first-class variety. For years it has been a standard of excellence in all points, with us; superior quality, large size, hardness of bud and cane, sells well in market as it is jet-black and holds its color well, berry large and juicy without core, entire freedom from **Orange Rust** and a prolific bearer.

What more can we say? Try it for yourselves, giving it a good strong soil, full of humus, prune and cultivate properly and my word for it, you will be pleased.

Our plants are No. 1 suckers:

Twenty-five, 35c; hundred, \$1.25; thousand, \$12.00.

Wilson's Early—Of good size, very early, beautiful dark color, of sweet excellent flavor and very productive. Ripens the whole crop nearly together.

This variety is tender in cane and in northern latitudes will have to have winter protection. This is not such a serious job as some might think; if taken just before the leaves drop in fall and wood is still somewhat green, the canes in the hill can be gathered together and bent to the ground and tips covered with enough earth to hold them in this position. Always bend toward the prevailing winds as this will tend to hold the snow, if any. Commence at the far end of row and bend from you, but in line with the row, continuing this

with each hill, letting top of one overlap the root of the previous one. Unless very dry, few canes will be broken by this bending. After all are bent down, cover rows with strawy manure, or other litter, using enough to cover from sight; then, using a medium size turning plow with one horse, turn two furrows at each side of row, being careful not to plow deep enough to cut roots. This is usually sufficient, but it would be as well to go over the field with shovel covering any canes exposed. We do not cover to keep from freezing, but to prevent sun and wind drying out too much, thus evaporating the sap, or life fluid from canes. This is the cause of injury more than intense cold. In the south this variety is hardy enough to stand without protection and is certainly one of the most profitable sorts for market. Our plants are No. 1 sucker plants.

Twenty-five, 35c; hundred, 85c; thousand, \$7.00.



Eldorado.

Currants

A cool, moist location is best for this fruit, and for this reason succeeds admirably when planted by a stone wall or fence; being benefited by partial shade. Plant in rows four feet apart, and the plants three feet part in the rows. Keep the ground mellow and free from weeds and grass, using fertilizer copiously. Mulching is necessary for the best returns.

Perfection—This new currant was originated by C. G. Hooker, of New York State, by crossing the Fay's Prolific with the White Grape Currant. It has the large size of the Fay, with the extra good quality and great productiveness of the White Grape. The color is beautiful bright red, and is less acid and of better quality than any other large currant in cultivation. Perfectly healthy, and a vigorous grower, and in fact the best currant for home use or market purposes under cultivation today. In July, 1901, it was awarded the \$50.00 Barry gold medal by the Western New York Horticultural Society after a trial of three years. It also received the highest award given any new fruit at the Pan-American Exposition, and it also received the only gold medal awarded to any currant at the St. Louis Exposition. It has also received a great many testimonials from the highest sources in this country. We show a natural size cluster of this fruit reproduced from a photograph taken at the New York Experiment Station. I think all who want a fancy fruit of this sort will do well to try a few. Two year plants.

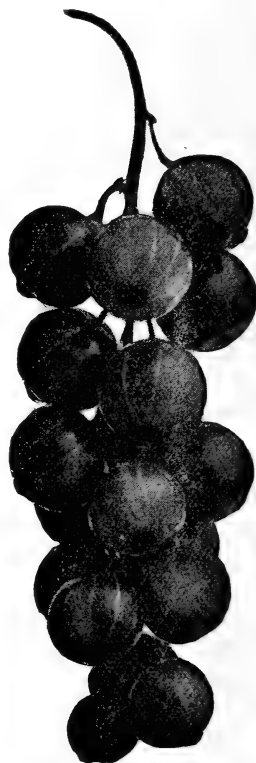
Twelve, \$1.50; twenty-five, \$3.00; hundred, \$10.00.

Wilder—A remarkable variety, for which we predict great popularity, both for table and market. One of the strongest growers and most productive. Bunch and berries very large, bright attractive red color, even when dead ripe; hangs on bushes in fine condition for handling as late as any known variety. Compared with the celebrated Fays is equal in size, with longer bunch, better in quality, with much less acidity; ripens at same time, continues on bush much longer; fully as prolific, in some trials largely outyielding it. Recommended by our Experiment Station as the best red currant. Strong one year plants.

Dozen, 75c; hundred, \$4.50.

London Market—Of English origin. As compared with Victoria, it is larger, more productive, much stronger grower, less infested with borers, and retains its foliage until frost comes. It has produced twice the amount of fruit the Victoria did under the same conditions; a very strong and upright grower. Strong plants. Dozen, 75c; hundred, \$4.50.

White Grape—Very large, yellowish white, sweet or very mild acid; excellent quality and valuable for the table. The finest of the white sorts. Dozen, 75c; hundred, \$4.50.



Perfection.

Gooseberries

The same soil and conditions best adapted to currants will be appropriate for gooseberry culture. The American varieties of gooseberries are among our hardiest plants. All of the standard sorts of the present day are cultivated forms of a native species natural to the upper Mississippi Valley, and in this region the cultivated sorts seem to reach their highest development. Clean culture should be given until the plants are well established, usually about the third year; after this they may be permanently mulched. As the best fruit is borne on the two and three year-old wood, a certain amount of pruning will be necessary to encourage a strong growth of canes and in the removal of the older wood after bearing.

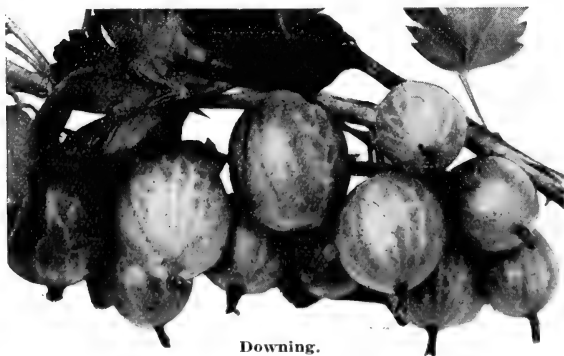
Downing—This is without doubt the best gooseberry for general cultivation that is offered today. It is an American or Native seedling, not an English sort. The latter are very hard to grow successfully in this climate on account of weak foliage which is very susceptible to mildew. When this disease attacks the gooseberry it causes the foliage to drop before the berries are fully grown and materially injured the crop.

Downing is a yellowish green sort, and of good size, being a strong growing bush and a very prolific bearer. Plants of all varieties of gooseberries are in light supply and in very good demand, and the price is high.

Dozen, \$1.50; twenty-five, \$2.50; hundred, \$8.00.

Houghton—An enormously productive and always reliable old sort; of vigorous, yet rather slender, spreading growth, not subject to mildew. Fruits of medium size, smooth, pale red; tender and good.

Dozen, \$1.25; twenty-five, \$2.00; hundred, \$7.00.



Downing.

Grape Vines

The grape is one of the easiest fruits to grow and should be in all collections. When once well established, vines will continue in bearing a long time with very little care, other than the cutting back of the extra growth which should be done in winter or very early spring (before sap starts to circulate). This pruning is essential to the healthy growth of the vine and its fruitfulness. The grape is fast becoming a leading fruit in our section of Michigan, and there is no reason why it should not be grown in many other sections of our country. With such hardy varieties as Concord, Worden and Niagara, no one need be without at least few for the home use, as the vines can be taken off the trellis for the winter, and if covered lightly with some kind of mulch will stand the extremes of our northern climates. Owing to the very heavy demand and a material shortage of stock for this season, the prices are somewhat higher than in recent years. My vines are all New York grown, and will be first class, and of grade represented.

Niagara (White).—Vine hardy, an unusually strong grower; bunches very large and compact, sometimes shouldered; berries as large or larger than Concord; mostly round, light greenish white; semi-transparent, slightly amber in sun, skin thick, but tough, and does not crack; quality good; very little pulp, melting and sweet to the center.

First-class one year plants: Dozen, 75c; hundred, \$4.00.

Concord—A large, purplish, black grape, ripening about the middle of September; vines remarkably vigorous and free from disease; the standard for productiveness and hardiness all over the country. One year, No. 1: Dozen, 50c; hundred, \$2.50.

Worden—A splendid, large grape of the Concord type, but earlier, larger in bunch and berry, and of a decidedly better quality; vine hardier than that old standby and every way as healthy. A very popular sort, planted largely for the market; next to Concord in number used.

Fine one year plants: Dozen, 60c; hundred, \$3.50.

Moore's Early—A black grape. Bunch large, berry round, quality better than the Concord; vine exceedingly hardy. Its earliness makes it desirable for an early crop, and more particularly adapts it for New England and the northern portion of the United States, maturing as it does ten days before the Hartford and twenty days before the Concord. No. 1, one year: Doz., 75c; hundred, \$4.00.

Brighton (Red)—Perhaps the best red grape in cultivation. Bunch large and compact, a strong grower and very productive; quality good. Fine one year plants. Dozen, 75c; hundred, \$4.00.



Niagara.

Asparagus Roots

When planting asparagus roots, set four to six inches deep, and about 12 inches apart in the row, covering with only three inches of soil at first, and filling in the trenches as the plants grow.

The asparagus bed is apt to be neglected in the early fall. Before the 1st of September the tops should be cut, and the bed or field cleared of weeds. It is highly important that all the seed should be taken off, as the greatest enemy the asparagus has in the way of weeds is asparagus, and it is almost impossible to get clear of superfluous plants, when once established. When this work is finished, cover the bed to the depth of three inches with coarse manure, which will not only enrich the soil, but it will keep out the frost, which is highly essential.

The first work in the spring should be to remove all the covering except the fine manure, which should be carefully forked in, so that the crowns will not be injured by the tines of the fork. Forking the beds should not be neglected, as the early admission of the sun and rain into the ground induces the plants to throw up shoots of superior size. Another step in the right direction is to keep the ground entirely free from weeds the entire season, as these take from the plants the strength required for their own growth and the asparagus needs it all.

Palmetto—A valuable new variety and is being planted very largely. It is nearly twice the size of Conover, fully as early, and as productive. The flavor is excellent.

Hundred, 75c; thousand, \$4.00.

Giant Argenteuil—This variety is largely grown in France, but has become adapted to our soil and climate. Is noted for its earliness, productiveness and immense size of stalks. Remarkably healthy.

Hundred, 75c; thousand, \$4.00.

Rhubarb or Pie Plant

This deserves to be ranked among the best early products of the garden. It affords the earliest material for fine pies and fresh table sauce, continues long in use, and is valuable for canning. Make the ground rich and deep, as recommended for asparagus. Plants four feet each way.

Myatt's Linnaeus—Those who have never grown this variety, which is of superior quality, will hardly recognize the old "Pie Plant." It is an early, tender variety, without being in the least tough or stringy, with a mild, sub-acid flavor.

Good strong roots, 5c each; dozen, 50c; hundred, \$4.00.

Price List for 1913

Strawberry Plants

If by mail add 10c per twenty-five, or 25c per hundred, for postage.

At thousand rates, by freight or express only. Fifty of one variety at hundred, or 300 of one variety at thousand rates.

Variety.	25	100	1000	5000
Aroma	(Perfect) \$0.20	\$0.60	\$3.50	\$15.00
Blaine	(Perfect)15	.50	3.00	
Bubach	(Imperfect)20	.60	4.00	
Beder Wood	(Perfect)15	.50	2.25	9.00
Brandywine	(Perfect)20	.60	3.50	15.00
Chesapeake	(Perfect)35	1.00		
Excelsior	(Perfect)15	.50	2.50	10.00
Fendall	(Imperfect)35	1.00		
Glen Mary	(Perfect)20	.60	3.50	15.00
Gandy	(Perfect)20	.60	4.00	
Gibson	(Perfect)20	.60	4.00	15.00
Highland	(Imperfect)20	.60	4.00	
Haverland	(Imperfect)20	.60	3.50	15.00
Heritage	(Perfect)20	.60	3.50	
Luther	(Perfect)15	.50	2.50	
Lovett	(Perfect)15	.50	3.00	
Marshall	(Perfect)25	.75	5.00	
Norwood	(Perfect)25	.75	5.00	
Pocomoke	(Perfect)20	.60	3.50	15.00
Ryckman	(Perfect)15	.50	3.00	
Senator Dunlap	(Perfect)15	.50	2.50	9.00
Splendid	(Perfect)15	.50	3.00	
Sample	(Imperfect)20	.60	4.00	
Steven's Late	(Perfect)20	.60	3.50	15.00
Uncle Sam	(Perfect)20	.60	3.50	
Wm. Belt	(Perfect)20	.60	3.50	15.00
Warfield	(Imperfect)15	.50	2.50	9.00

Raspberry Plants

By express or freight only, charges not paid.

Variety.	25	100	1000	5000
Cuthbert	Red \$0.25	\$0.75	\$6.00	\$25.00
Early King	Red25	.75	6.00	25.00
Miller	Red25	.75	5.00	20.00
St. Regis	Everbearing Red75	3.00	25.00	
Columbian	Purple50	1.75	15.00	
Cardinal	Purple50	1.75		
Haymaker	Purple50	1.75	15.00	
Cumberland	Black30	1.00	8.00	37.50
Gregg	Black30	1.00	8.00	37.50
Plum Farmer	Black40	1.50	12.00	

Blackberry Plants

Variety.	25	100	1000	5000
Eldorado .....	. . . . . \$0.40	\$1.50	\$12.00	\$55.00
Wilson's Early .....	. . . . . .30	.85	7.00	30.00
Ward .....	. . . . . .35	1.25	10.00	

Currants

Variety.	12	100
Perfection .....	. . . . . \$1.50	\$10.00
Wilder .....	. . . . . .75	4.50
London Market .....	. . . . . .75	4.50
White Grape .....	. . . . . .75	4.50

Gooseberries

Variety.	12	100
Downing .....	. . . . . \$1.50	\$ 8.00
Houghton .....	. . . . . 1.00	7.00

Grape Vines

Variety.	12	100
Concord .....	. . . . . \$0.50	\$ 2.50
Worden .....	. . . . . .60	3.50
Moore's Early .....	. . . . . .75	4.00
Brighton .....	. . . . . .75	4.00
Niagara .....	. . . . . .75	4.00

Instructions to Purchaser

My Location—I am located in southwestern Michigan, about fifteen miles south of St. Joseph, near Lake Michigan, in what is known as the "Great Fruit Belt."

Railroad Connections are good. Our line of road, the Pere Marquette, runs mail and express trains direct to Chicago; time about three hours. Within fifty miles this line connects with the great trunk lines, east, west, north and south.

Telephone—Long distance telephone in our office.

Mail Orders—I can ship strawberry plants by mail when so desired, and on small amounts for long distance this is much the cheaper transportation, but not so safe as express, as the mode of packing is of necessity different; not having the chance for ventilation, plants are more likely to heat enroute.

I much prefer express shipments, and must decline any large orders to be shipped by mail. The Parcels Post Law does not affect this class which remains the same.

By Express—This is the safest way to ship live plants, as it makes fast time with the least liability of delay. Sometimes when transferred to another company the charges seem rather high, but when the nature of the service is considered it is really the cheapest in the end.

We have only the United States Express Company; however, we find little difficulty in reaching most of our customers by this company, and its connections.

All express companies now bill nursery stock at "General Special" rate, being a reduction of twenty per cent. from the merchandise rate, also making it a "Pound" rate with a minimum charge of thirty-five cents.

We can also get a low rate on long distance shipments of eight cents per pound, with a limit of ten dollars in valuation for each shipment. This is of considerable benefit to our customers west of the Rocky Mountains, where the rate is often ten or twelve dollars per hundred pounds.

Freight—Early in the season I can ship by freight with comparative safety, but there is a possibility of delay and consequent loss. Parties ordering stock shipped by freight will have to take the risk, as I cannot be responsible for loss, if any, on stock shipped in this manner.

I do not undertake to guarantee safe arrival by any of these modes of transportation, as I have no control of stock after it leaves my hands; however, it is to my interest, as well as the interest of my customers, to have stock reach the purchaser in good condition, and I shall always endeavor to so pack and forward goods that they may prove satisfactory.

My Packing is done in the best possible manner and under my personal care. I use light crates or baskets with plenty of moss for packing strawberry plants, and barrels and boxes for other sorts, making no charge for the work or package. My long experience in this line gives me a decided advantage in the matter of **safe packing**. I also have experienced help who have worked with me several years. Of course, we do not claim infallibility, and are always ready to make reparation where at fault.

Shipping season begins about April 1st, or possibly last week in March, and continues until about 1st to 10th of May.

Terms—One-fourth cash with order, balance before stock is shipped. Or I will ship C. O. D. if one-half of the amount accompanies the order and purchaser will agree to pay the return charges on the money.

Remittances may be made either by New York or Chicago draft, postoffice or express order, or where none of these may be had, by registered letter.

Rates—Fifty plants of one variety at hundred rates; or three hundred plants of one variety at thousand rates. When an order amounts to \$10.00 or over, it may be counted at the thousand rate, regardless of number taken. No order booked for less than \$1.00.

My Prices are as a general thing very low, but on large lists we are sometimes able to give better rates and invite all wanting **large lots** to write for estimates.

By **large lots** I mean a quantity; ten to twenty thousand and up.

Do not write for **special prices** on two or three thousand.

Order Blanks—Use the order blank enclosed when ordering, being careful to write your name **plainly**, giving Postoffice, County and State, and do this every time you write. Also keep a **copy** of your order yourself. Be particular to say how goods are to be sent, whether by mail, express or freight.

All orders are acknowledged immediately upon receipt. If you do not receive an acknowledgement in a reasonable time, write again.

When to Order—Early, by all means. The rule generally is, "First come, first served," also the early orders find full stock, while later some varieties are liable to be exhausted. Orders are filled in rotation as received, except sometimes our southern patrons are ready to set in advance of those further north; these orders we usually crowd first, and get them out as soon as frost is out of the ground in spring.

Our customers will please remember that the time for filling orders is short, and it would facilitate our work greatly if orders were sent before the rush. This is also an advantage to our customers, for they get what they order, no varieties being sold out. To encourage these early orders I will make this offer:

Premium Offer—On all orders at catalog rates received during January and February with cash in full, I will allow a cash discount of 5 per cent., or for every dollar sent during these months you may order additional stock to the amount of ten cents. (See inside front cover of this catalog for other premium offers).

Substitution—In ordering, please state whether I shall substitute some other variety in case the kind ordered should be exhausted. If not forbidden I claim the right to substitute something of equal value, but always label true to name. I always aim to substitute sort similar in quality and season and always something listed at equal or higher rate.

Guarantee and Condition of Sale—While I take great pains to have stock true to name and hold myself ready upon proper proof to refund money or replace any that proves untrue, it is mutually agreed that I shall not be liable for a greater sum than the amounts paid for such stock.

Every order received for articles named in this catalog will be received and executed on the above conditions only, and with the distinct understanding and agreement on the part of the purchaser that I shall in no case be liable for a greater amount than the sum originally paid to me for the stock in question.

References—I refer to the United States Express Agent or Postmaster at Bridgman; Union Banking Company, St. Joseph; or Bradstreet's Commercial Reports, as to my standing and reliability. Parties writing any one of the above, please enclose stamp for reply.

